



Minimum Evaporating Temp. With:

— 20 °C Suction Gas Return

— Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

4MF-13X

R134a

Cond °C	Cooling Capacity, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	18.00	22.80	28.60					
15.0	17.15	21.70	27.40	34.20				
20.0	16.20	20.60	26.10	32.50	40.20			
25.0	15.25	19.50	24.70	30.90	38.20	46.60	50.30	
30.0	14.25	18.35	23.30	29.20	36.10	44.10	47.60	53.30
35.0	13.25	17.15	21.80	27.40	33.90	41.50	44.90	50.20
40.0	12.30	15.95	20.40	25.60	31.80	38.90	42.10	47.10
45.0	11.30	14.75	18.90	23.80	29.60	36.30	39.20	44.00
50.0	10.35	13.60	17.45	22.00	27.40	33.60	36.40	40.80
55.0	9.44	12.45	16.00	20.20	25.20	30.90	33.50	37.60
60.0		11.30	14.60	18.45	23.00	28.20	30.60	34.30
65.0			13.20	16.70	20.80	25.60	27.70	31.10
70.0			11.85	15.00	18.65	22.90	24.80	27.90
75.0				13.30	16.50	20.30	22.00	24.70
80.0				11.70	14.45	17.70	19.20	21.60

Cond °C	Power, kW							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	4.16	4.40	4.48					
15.0	4.49	4.81	4.99	5.00				
20.0	4.79	5.21	5.48	5.61	5.58			
25.0	5.08	5.58	5.95	6.19	6.29	6.23	6.17	
30.0	5.34	5.93	6.40	6.76	6.98	7.07	7.06	7.01
35.0	5.58	6.25	6.83	7.30	7.65	7.88	7.93	7.97
40.0	5.80	6.55	7.23	7.81	8.29	8.66	8.78	8.91
45.0	5.99	6.83	7.60	8.30	8.90	9.42	9.59	9.82
50.0	6.15	7.08	7.95	8.76	9.49	10.15	10.40	10.70
55.0	6.29	7.30	8.27	9.19	10.05	10.85	11.15	11.55
60.0		7.49	8.56	9.59	10.60	11.50	11.85	12.40
65.0			8.82	9.96	11.10	12.15	12.55	13.20
70.0			9.05	10.30	11.55	12.75	13.25	13.95
75.0				10.60	12.00	13.35	13.85	14.65
80.0				10.90	12.40	13.85	14.45	15.35

50 Hz

4MF-13X

R134a

Cond °C	Current at 400 V, A							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	9.54	9.78	9.82					
15.0	9.86	10.21	10.40	10.39				
20.0	10.18	10.65	10.98	11.12	11.07			
25.0	10.50	11.09	11.55	11.86	11.99	11.90	11.79	
30.0	10.80	11.51	12.12	12.59	12.90	13.02	13.01	12.91
35.0	11.09	11.92	12.67	13.31	13.81	14.13	14.21	14.26
40.0	11.36	12.31	13.21	14.01	14.70	15.23	15.40	15.59
45.0	11.60	12.68	13.72	14.69	15.57	16.32	16.57	16.90
50.0	11.81	13.02	14.20	15.35	16.41	17.37	17.72	18.19
55.0	11.99	13.32	14.66	15.97	17.23	18.40	18.84	19.46
60.0		13.59	15.07	16.56	18.01	19.40	19.93	20.69
65.0			15.45	17.11	18.75	20.36	20.98	21.89
70.0			15.78	17.61	19.45	21.27	21.99	23.04
75.0				18.06	20.10	22.14	22.95	24.15
80.0				18.46	20.69	22.95	23.86	25.21

Cond °C	Suction Mass Flow, g/s							
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	87.40	111.00	140.00					
15.0	86.00	109.50	138.50	173.50				
20.0	84.30	108.00	136.50	171.50	213.00			
25.0	82.40	106.00	134.50	169.00	210.00	258.00	280.00	
30.0	80.30	103.50	132.00	166.50	207.00	255.00	276.00	311.00
35.0	78.00	101.00	129.00	163.00	203.00	251.00	272.00	306.00
40.0	75.50	98.40	126.00	159.50	199.50	246.00	267.00	301.00
45.0	72.90	95.50	123.00	156.00	195.00	241.00	261.00	295.00
50.0	70.20	92.50	119.50	151.50	190.00	235.00	255.00	288.00
55.0	67.60	89.50	116.00	147.50	185.00	229.00	249.00	281.00
60.0		86.50	112.00	142.50	179.00	223.00	242.00	274.00
65.0			108.50	138.00	173.50	216.00	235.00	266.00
70.0			105.00	133.50	167.50	208.00	227.00	257.00
75.0				128.50	161.50	201.00	219.00	248.00
80.0				124.50	155.50	193.00	210.00	239.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m³/h	61.7
Bore/Stroke, mm	63.5/56.0
Length/Width, mm	638/501
Height, mm	452
Net Weight, kg	177
Suction, inch	1 5/8
Discharge, inch	1 1/8
Oil Quantity, l	3.3
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	381 x 305 (18)
Sound Pressure @ 1m (MT), dBA	67
Sound Power (MT), dBA	78
Sound Power with Sound Shell (MT), dBA	64
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
High Side PS gauge, bar	32.5
Low Side PS gauge, bar	22.5
Refrigerant's GWP	1430
Refrigerant's classification	A1

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	30.8
Locked Rotor Current, A	105
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Mounting Parts	Spring
CoreSense Protection (-P)	Motor protection
Oil Pressure Switch (-P)	OPS2 Sensor
Copeland Compressor Electronic (-N)	Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement

ACCESSORIES OPTIONAL

Check Valve	For unloaded start operation
Adapter Kit	For Parallel Operation
Additional Cooling	70 W Vertical Air Flow Fan
Crankcase Heater	100 W Internal
Oil Pressure Switch	OPS2 Electronic Switch
Sound Attenuation	Sound Shell
Capacity Control	Capacity Steps 50%
Mounting Parts	Rubber
Copeland Compressor Electronic module	Modbus extension module

MOTOR OPTIONS

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
AWM	380-420 V / 3~ / 50 Hz	400	YY/Y	Y	1.00
EWL	220-240 V / 3~ / 50 Hz	230	Y/DELTA	DELTA	1.73
EWL	380-420 V / 3~ / 50 Hz	400		Y	1.00
EWM	380-420 V / 3~ / 50 Hz	400	Y/DELTA	DELTA	1.00
AWR	220-240 V / 3~ / 50 Hz	230	YY/Y	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YY/Y	Y	0.76
EWK	220-240 V / 3~ / 60 Hz	230	Y/DELTA	DELTA	2.10
EWK	380-420 V / 3~ / 60 Hz	380		Y	1.20
EWD	440-480 V / 3~ / 60 Hz	460	Y/DELTA	DELTA	1.00
AWC	208-230 V / 3~ / 60 Hz	230	YY/Y	Y	2.19
AWX	380 V / 3~ / 60 Hz	380	YY/Y	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YY/Y	Y	1.00